

ABSTRACT

A method and system for simultaneously regenerating a particulate filter coupled to an internal combustion engine and for desulfating a lean NOx trap disposed downstream of the particulate filter. The method includes adjusting at least one engine operating parameter to maintain a desired air fuel ratio for gases exiting the lean NOx trap in accordance with a difference between a reference set point air fuel ratio level and the air fuel ratio of gases exiting the lean NOx trap and wherein the reference set point level is changed between a rich air fuel ratio and a lean air fuel ratio as a function of the air fuel ratio of the exiting the lean NOx trap.

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